Frequently Asked Questions*
Cancer in Companion Animals

What is cancer?
Cancer is an unrestrained growth of cells that destroys normal tissue and body parts as it grows. Some cancers are very aggressive and can spread (metastasize) fairly quickly throughout the body. Other cancers are slow growing and are more unlikely to spread. Most of the types of cancers that affect people can also affect companion animals.

What are the signs of cancer?
The Veterinary Cancer Society and the American Veterinary Medical Association developed a list of 10 common signs of cancer in companion animals. Their list includes:

- Abnormal swellings that persist or continue to grow
- Sores that do not heal
- Weight loss
- Loss of appetite
- Bleeding or discharge from any body opening
- Offensive odor
- Difficulty eating or swallowing
- Hesitation to exercise or loss of stamina
- Persistent lameness or stiffness
- Difficulty breathing, urinating, or defecating

How common is cancer in dogs and cats?
Cancer causes more deaths in senior dogs and cats in the U.S. than any other disease. While cancer may eventually take a pet's life, many cancers are treatable. Treatment can extend a pet's life for many months and even years beyond diagnosis.

What causes cancer?
With a few exceptions, the cause of cancer in pets, just like in people, is largely unknown. There are certain breeds that tend to get certain types of cancers more often than others, such as large breed dogs and bone tumors. There are also environmental factors, such as exposure to the sun, which may be associated with increased incidence of cancer.

Is cancer genetic?
Some cancers undoubtedly include a genetic component. As genetic knowledge advances, scientists and doctors will be able to offer more effective cancer screenings and preventive recommendations and/or treatments.

Can cancer be prevented?
Because the cause of cancer is largely unknown, preventing cancer is generally not possible. In veterinary

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medicine, the best strategy is to detect and treat cancer early. If an animal shows any of the signs of cancer, the pet should be evaluated as soon as possible. A "wait and see" policy is not the best course of action. When cancer is found early, it can usually be treated more effectively.

What is a biopsy?
A biopsy is a way to obtain a sample of a tumor for evaluation by a pathologist. There are several different ways of performing biopsies including techniques that require special needles and some that require surgery. In general, a biopsy is necessary for an accurate diagnosis and, ultimately, for the creation of an effective treatment plan.

Can cancer be treated in animals?
YES! Not all animals can be cured completely to become cancer free, but treatment can extend their lives for months and even years in many cases. Surgery, radiation therapy, and chemotherapy are three of the most commonly used treatments. Not only can cancer be treated effectively and extend the pet's life, the *quality of life* can be excellent too.

What is cytology?
Cytology is a method of looking at cells under a microscope to determine their origin, and whether or not they are malignant (cancerous). One way of obtaining cells for cytology is by removing cells from a tumor using a small hypodermic needle. That technique is called a *fine needle aspirate.*

What is “grade”?
A tumor is categorized as high grade or low grade. The tumor may even be assigned a number such as grade 1, grade 2, or grade 3. A grade 1 tumor is a low grade tumor which means it may be less likely to spread and may be more responsive to treatment. A high grade tumor may be more likely to spread and be more resistant to treatment. By grading tumors, doctors can better predict how likely a cancer is to spread and determine the tumor's likelihood of responding to therapy.

What is “stage”?
The stage of a tumor refers to the extent of disease found in the body. "Staging" generally includes consideration of the local tumor size, the lymph node status, and whether or not the cancer has spread to other sites in the body.

What is metastasis?
Metastasis is a medical term that refers to the spread of cancer to one or more distant sites in the body such as lungs, lymph nodes, or bones.

How is surgery used to treat cancer?
Surgery can be used to remove tumors completely or to "debulk" them (decrease their mass) to make other modes of therapy more effective. Surgery is also used to obtain biopsy samples to help identify the type of cancer a pet may have. The extent of surgery varies depending on the goals for each individual patient, as well as the grade and stage of the disease. Leg amputations and even removal of other body parts like eyes, noses, and jaw bones are increasingly common. The majority of animals recover quickly and adapt quite readily to life without a body part.

What is chemotherapy?
Chemotherapy simply means treating disease with medication. The term is most commonly used to refer to treating cancer with medication. Most chemotherapy drugs are given directly into a vein, but others are given orally or by injection into a muscle. Chemotherapy alone is effective against some forms of cancer such as lymphoma, but is often used in combination with other treatments such as surgery. The side effects of veterinary chemotherapy, although not entirely absent, are usually significantly less severe than those seen in human medicine because lower dosages of medication are often used. The side effects vary for each drug and for each dosage used.

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What is radiation therapy?

Radiation therapy is one method of treating cancer with x-rays or electron radiation. It may be used alone, or in conjunction with other treatments such as surgery and chemotherapy. The effectiveness of radiation therapy varies depending on the size of the tumor, the type of cancer, and where the tumor is located. Radiation therapy is most effective at treating tumors that occur in one area (localized disease) rather than tumors that have spread to other parts of the body (systemic disease). Radiation therapy is ideally given every day for a period of three to four weeks and, for animals, each treatment usually requires a brief general anesthesia. The side effects of this treatment vary depending on what part of the body is treated.

What is hyperthemia?

Hyperthermia is a method of treating solid tumors using heating devices to raise the temperature of a tumor. Since tumor cells are very sensitive to increased temperatures, raising the temperature kills tumor cells. Protecting normal tissue is very important, so the type of heating device depends on the location of the tumor. Hyperthermia is often combined with other cancer treatments such as radiation therapy or chemotherapy. In combination, they work synergistically to kill additional tumor cells.

Hyperthermia is currently available for the treatment of pets with cancer at a limited number of veterinary teaching hospitals. Studies are ongoing to determine how to uniformly heat a variety of tumor types, and to determine the optimal dose of hyperthermia.

What is cryosurgery?

Cryosurgery is a method of killing tumor cells with extreme cold temperatures using liquid nitrogen. The tumors best treated with cryosurgery are small, benign masses less than one inch in diameter.
Typically, these masses are located on the eyelid, anus, mouth, or skin. Depending on the location of the tumor, the patient may require sedation, local anesthesia, or general anesthesia to perform cryosurgery.

Are there other experimental treatments for pets with cancer?

Yes, new treatments are being tested every day at university veterinary hospitals and private specialty practices all over the world. Many of these hospitals conduct clinical trials on animals who qualify (meet certain criteria and are entered with an owner's knowledge and permission) for these studies. To find out more, visit www.vetcancersociety.org or ask your veterinarian to refer you to a veterinary oncologist near you.

How will I know if my pet is in pain?

Pain will induce alterations of a pet's normal behavior. These changes may include loss of normal behaviors and routines, appearance of new and uncharacteristic behavior, and expression of behavior designed to limit pain or adapt to loss of function. There are many ways that pain could modify daily routines.

Some animals in pain may appear dull or depressed, while others may appear tense and agitated. Painful animals often eat less than usual, or may eat nothing at all. Some may stop grooming themselves, or may be unwilling to rise to urinate or defecate. Animals in pain may change body postures frequently, or may be reluctant to lie down. They may sit or stand for hours, even when they appear exhausted. They may vocalize, chew at themselves, or rub an area in an unusual way. Their breathing is often rapid and shallow. Painful animals may seem to stare off into space with eyes that are wide open and pupils dilated. Interactions with family often change in response to pain. Chronic pain may limit participation in family activities.

Pain may provoke dramatic changes that can include increased aggression or submission and solicitation of affection. Many early changes may be so subtle as to go unrecognized by even the most observant owners. Careful observation of behavioral changes remains the most useful method of recognition of pain in pets. Pain in pets can be managed →

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very effectively with many different types of medication.

How will I know if it's time for euthanasia?
Anticipating death and knowing that it is near can be intimidating, overwhelming, and cause great anxiety. Therefore, having solid, concrete information about what to watch for and what to do may make it seem more manageable. It is a good idea to ask a veterinarian for a list of the medical symptoms that may signal the last stage of a pet's life. This list may include loss of appetite, refusal of water, and a lack of energy or interest in daily routines.

If a pet is experiencing significant discomfort, the pupils may be dilated and the eyes may appear glossy. Also, the animal may not pay attention to detail, sound, or movement in the room, or respond when a human talks to him. If a pet is suffering, he may be lethargic or sulky and dull. He'll seem sick and unhappy, as if he had the flu.

When a pet seems to have more bad days than good days or even more bad hours than good hours, it is a sign that, in some way, he is suffering. Pet owners and their pets have always been able to communicate. That doesn't change. However, end-of-life communication means shifting away from trying to save a pet to finding ways to say good-bye. When treatments have been exhausted and a pet's pain and suffering become more prominent, euthanasia is the final gift a pet owner can give to a beloved pet.

For more information visit the Veterinary Wisdom® Resource Center at www.veterinarywisdompetparents.com.

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